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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/103,528	06/24/98	BENAZZI	E PET1673

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EXAMINER

SAMPLE, D

ART UNIT	PAPER NUMBER
1755	

DATE MAILED: 03/17/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>09/103,528</b>	Applicant(s) <b>BENAZZI et al.</b>
	Examiner <b>David Sample</b>	Group Art Unit <b>1755</b>

Responsive to communication(s) filed on Feb 1, 1999.

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-30 is/are pending in the application.

Of the above, claim(s) 18-30 is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-17 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## DETAILED ACTION

### *Election/Restriction*

Applicant's election with traverse of claims 1-17 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the nonelected claims will ipso facto be allowable if the product claims are found to be allowable. Upon a finding of allowable subject matter, Groups II will be rejoined in accordance with MPEP 821.04. However, until such time, Group II, claims 18-30, are withdrawn from further consideration.

### *Claim Rejections - 35 U.S.C. § 112*

Claims 2-5, 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 2-5, it is unclear whether the Si/T ratio recited is referring to the starting zeolite, or the modified zeolite.

Regarding claim 9 and 10, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

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***Claim Rejections - 35 U.S.C. §§ 102 & 103(a)***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, and 11-17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Casci et al. (US Patent No. 4,537,754).<sup>1</sup>

Casci et al. discloses a zeolite designated EU-1 having a Si/Al ratio of, for example, 60, and which may be as high as 250. See col. 12, lines 7-8, and Table 4, Example 5.

Casci et al. fails to disclose that the broad range of Si/T ratios is a result of removal of T atoms. However, the recitation of removing T atoms is a product recitation in a process claim.

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<sup>1</sup> "The use of 35 U.S.C. 102 / 103 rejections for product-by-process claims has been approved by the courts." MPEP 2113.

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Product claims employing process limitations are not limited to the manipulations of the recited steps, only the structure implies by the steps. MPEP 2113. There appears to be no difference between a zeolite having the recited Si/T ratio that results from direct synthesis as compared to a product that results from removal of T atoms.

The recitations of claims 11-17 can be found in the reference at column 5, line 34 to column 6, line 2.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Casci et al. (US Patent No. 4,537,754) in view of Kuehl et al. (US Patent No. 4,954,243).

Casci et al. discloses a zeolite designated EU-1 which has a Si/Al ratio of above 5 and as high as 250. See col. 12, line 7. The reference differs from the present claims by failing to disclose extracting at least 10% of T atoms.

Kuehl et al. discloses a method for extracting aluminum from zeolites by calcining (i.e., heat treating) a zeolite, and contacting the zeolite with an acid or chelating agent (for example EDTA). See the Abstract, col. 11, lines 44-65, and col. 13., line 10-16. The treatment results in removal of 10 to 90% of the aluminum from the zeolite. See col.12, lines 59-63.

Kuehl et al. does not specifically recite that its method is amenable with EU-1. However, Kuehl et al. discloses that its method can be performed on zeolites having a constraint index of 1 to 12. Kuehl et al. discloses that ZSM-23 has a constraint index of 9.1. See col. 5, line 34. Casci et al. discloses that EU-1 has a structure that is closely related to ZSM-23. See col. 2, line

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64 to col. 3, line 7. Casci et al. analogizes the correlation to that of ZSM-5 and ZSM-11. Id. ZSM-5 and ZSM-11 have similar constraint indexes. See col. 5, lines 25-26 of Kuehl et al. Accordingly, since ZSM-23 has a constraint index of between 1 and 12, one of ordinary skill in the art would expect that EU-1 has a constraint index of between 1-12.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have dealuminated the zeolite disclosed by Casci et al. as suggested by Kuehl et al. because the dealumination process results in an increase in the acid activity of the resultant zeolite. See col. 2, lines 54-57.

The recitations of claims 11-17 can be found in the Casci et al. at column 5, line 34 to column 6, line 2.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Sample whose telephone number is (703)308-3825. The examiner can normally be reached from 8:30 AM to 5:00 PM Monday through Friday.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor can be reached at (703)308-3823. The fax number for this technical center is 305-3599.

D.R. Sample  
March 11, 1999



Mark L. Bell  
Supervisory Patent Examiner  
Technology Center 1700